

**REMARKS**

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

Applicants are submitting the present Amendment without prejudice to the subsequent prosecution of claims to some or all of the subject matter which might be disclaimed by virtue of this paper, and explicitly reserve the right to pursue some or all of such subject matter, in Divisional or Continuation Applications.

**I. CLAIM STATUS AND AMENDMENTS**

Claims 1-15 were pending in this application when last examined. Claims 1-4 were examined on the merits and stand rejected. Claims 5-15 were withdrawn as non-elected subject matter.

Claims 1-4 are amended to make minor editorial revisions to better conform to U.S. claim form. Such revisions are non-substantive and not intended to narrow the scope of protection.

Claim 1 is further amended at step 2 to specify that "the temperature control comprises cooling or heating the part and the substrate to the same temperature." Support for such can be found in the disclosure, for example, at page 2, lines 7-8, and at page 7, last paragraph (e.g., lines 21-22) which describes (1) the active cooling or heating of the substrate and the part is a feature which generates additional stress under the

condition that the part and the substrate have different coefficients of thermal expansion, and (2) that this effect is only effective, if the part with the higher coefficient of thermal expansion is cooled or heated at least by the same amount as the part with the lower one. In one embodiment of the instant application, the metallic substrate has a higher coefficient of thermal expansion than the part, which consists of a high temperature super conductor (HTSC) and has a ceramic structure. To match the criteria to heat or cool the substrate and the part by the same amount, heating or cooling means were positioned on both sides of the substrate-part-sandwich as depicted in Figure 1 of the present application. No new matter has been added.

New claims 15-20 have been added.

New dependent claims 15 and 16 are supported by the disclosure, for example, at page 3, second paragraph.

New independent claim 17 corresponds to original claim 1, but further specifies that the temperature control comprises cooling or heating both sides of the coated substrate. Support can be found in the disclosure, for example, at page 2, lines 7-8, and page 7, last paragraph (e.g., lines 21-22) and as depicted in Figure 1 (wherein the heater means (20) and cooling means (19a and 19b) are shown on both sides of the coated substrate).

New dependent claims 18, 19 and 20 correspond to original claims 2, 3, and 4, respectively, but depend on new claim 17.

No new matter has been added by the above claim amendments.

It is respectfully submitted that the new claims should be examined on the merits as they are encompassed within the elected invention.

Claims 1-20 are pending upon entry of this amendment.

Applicants thank the Examiner for the careful examination of this case, and respectfully request reexamination and reconsideration of the case, as amended. Below Applicants address the rejections levied in the Office Action, and explain why the rejections are not applicable to the pending claims as amended.

## **II. INFORMATION DISCLOSURE STATEMENT**

In item 2 on page 2 of the Official Action, the Office indicated that the Goodall et al. reference in the Information Disclosure Statement (IDS) filed March 22, 2006 was not officially considered, because a copy of the reference is not of record at the Patent Office.

Applicants believe that a copy was appropriately submitted with the March 22, 2006 IDS as evidenced by the attached PTO date-stamped postcard receipt. This postcard states that two references were submitted with the IDS. It should be noted that Goodall et al. was the only non-patent reference cited in the IDS, while the remaining references were all patent-

related documents. Pursuant to PTO practice, copies of these patent-related documents would not have been furnished with IDS. As a result, the patent-related documents would not have been one of the two references indicated as being submitted to the PTO. Instead, it is respectfully submitted that Goodall et al. and the International Search Report were the two references indicated as being submitted to the Office.

Nonetheless, attached herewith is a courtesy copy of the reference along with a copy of the PTO-1449 submitted with the March 22, 2006 IDS. Therefore, the Office is requested to kindly consider this reference and return an Examiner-initialed PTO-1449 form indicating such.

### **III. OBVIOUSNESS REJECTION**

Claims 1 and 3-10 were rejected under 35 U.S.C. § 103(a) as obvious over KRUGER et al. (DE 10,136,890, whereby KRUGER et al. U.S. 2004/0206630 is being used as an English translation equivalent) in view of JAGUNICH et al. (U.S. 6,024,907) for the reasons in item 3 on pages 4-5 of the Official Action.

This rejection is respectfully traversed as applied to the amended and new claims.

It is well established that to support a *prima facie* case of obviousness, the Office must provide a rationale showing that all the claimed elements were known in the prior art and one

skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions to yield predictable results. See, *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 U.S.P.Q.2d 1385, 1395 (2007); and M.P.E.P. § 2143.02.

In the instant case, Applicants respectfully submit that KRUGER et al. or JAGUNICH et al., taken alone or in combination, does not teach, suggest or make obvious each and every element of amended claim 1. Namely, the references, either alone or in combination, fail to teach, suggest or make obvious the method of independent claim 1 for producing a layer-like part, which requires that "the temperature control comprises cooling or heating the part and the substrate to the same temperature" and the resultant effect on the layer-like part. Likewise, with respect to new claims, the combined references also fail to teach, suggest or make obvious the method of new independent claim 17 for producing a layer-like part, which requires that "the temperature control comprises cooling or heating both sides of the coated substrate" and the resultant effect on the layer-like part.

Applicants will first discuss the primary reference of KRUGER et al.

On page 4 of the Official Action, it was indicated that the KRUGER et al. "pertains to a method for producing a textured metal strip whereby it is taught a method of producing a layer-

like part whereby the layer metal or non-metal depending on operator's choice is placed upon a metal texturized substrate via coating of the substrate and thus inherently subjected to some degree of temperature control and thereafter separated from the substrate allowing for microstructure texture to form on the layer allowing for quasi epitaxial growth to have occurred (See Figs. 1-2, Sections 0001-0033)." [Emphasis added.]

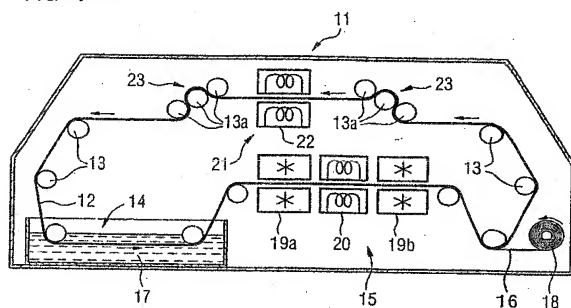
However, KRUGER et al. never discloses or suggests "the temperature control comprises cooling or heating the part and the substrate to the same temperature" as required in amended claim 1 and the resultant effect on the layer-like part. KRUGER et al. also never discloses or suggests that cooling or heating occurs on both sides of the coated substrate as required in new claim 17 and the resultant effect on the layer-like part. In fact, KRUGER et al. is silent with respect to temperature control, specific heating or cooling steps and conditions. Thus, KRUGER et al. cannot be said to suggest the above-noted features regarding the temperature controls in the methods of independent claims 1 and 17, nor the resultant effect on the substrate and the layer-like part.

Applicants will now discuss the secondary reference of JAGUNICH et al.

It is respectfully submit that JAGUNICH et al. fails to remedy the above-noted deficiencies KRUGER et al.

In this regard and as discussed above, to match the criteria to heat or cool the substrate and the part by the same amount (amended claim 1) and/or to heat or cool on both sides of the coated substrate (new claim 17), heating means (20) or cooling means (19, 19b) of the claimed methods in the instant application were positioned on both sides of the substrate-part-sandwich 12. By way of example, this recited feature in claims 1 and 17 reads on the embodiment illustrated in Figure 1 of the present application as shown below.

FIG. 1



JAGUNICH et al. fails to disclose or suggest this claimed feature. This can be seen by comparing claims 1 and 17 to the method in JAGUNICH et al. as represented in Figure 1a of JAGUNICH et al. below.

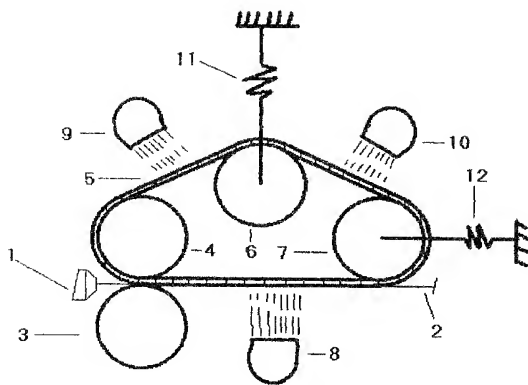


FIG. 1a

As shown in Figure 1a of JAGUNICH et al., the cooling means (8) is only effective from that one side of the band which is represented by the thermoplastic film (2). This has a technical consequence that, in the band, a temperature gradient occurs with its maximum in the film side and its minimum in the substrate side. This clearly contrasts with claims 1 and 17 of the instant application, whereby the substrate and part are heated or cooled at the same level.

Further, if the configuration of JAGUNICH et al. is transferred to the method of claim 1 of the instant application, it would lead to the effect that the substrate with the higher coefficient of thermal expansion would be less than the part. This would decrease the effect of building up stress between the substrate and the part according to the shape memory effect and not increase the stress as described in the instant application and found in the method of claims 1 and 17. As such, the



combination of KRUGER et al. and JAGUNICH et al. would not yield predictable results to arrive at the method of claims 1 and 17.

Therefore, Applicants respectfully submit that: (1) KRUGER et al. or JAGUNICH et al., taken alone or in combination, does not teach, suggest or make obvious the above-noted features of claims 1 and 17; and (2) the combination of KRUGER et al. and JAGUNICH et al. would not yield predictable results to arrive at the claimed method. For these reasons, the cited references cannot render obvious claims 1 and 17. Thus, independent claims 1 and 17 are novel and unobvious over the cited references.

Claims 2-4, 15, 16, and 18-20 depend, either directly or indirectly, on claim 1 or claim 17. These dependent claims are novel and unobvious over the cited references for the same reasons set forth above due to their dependency on claim 1 or claim 17.

Therefore, Applicants respectfully submit that the above-noted 103(a) obviousness rejection is untenable and should be withdrawn.

#### **IV. CONCLUSION**

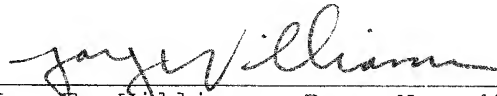
In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



---

Jay F. Williams, Reg. No. 48,036  
209 Madison Street, Suite 500  
Alexandria, VA 22314  
Telephone (703) 521-2297  
Telefax (703) 685-0573  
(703) 979-4709

JW/lk

**Appendix:**

The Appendix includes the following items:

- Goodall et al. reference entitled "Fabrication of cube-textured Ag-buffered Ni substrates by electro-epitaxial deposition"
- copy of stamped postcard receipt of March 22, 2006
- copy of PTO-1449 Form submitted with IDS of March 22, 2006